

## **REMARKS**

Claims 1-12, 14-38 and 40-55 are pending in the above-identified application. Claims 13 and 39 were previously cancelled.

In the Office Action dated August 6, 2009, claims 1-12, 14-38 and 40-55 were rejected.

Accordingly, claims 1-12, 14-38 and 40-55 remain at issue.

### **I. 35 U.S.C. § 103 Obviousness Rejection of Claims**

Claims 1-12, 14-38 and 40-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nafeh* (US 5,343,251) in view of *Wordemann* (US 7,088,909) in view of *Hooks et al.* (US 6,169,542) in view of *Dimitrova et al* (US 6,100,941). Applicants respectfully traverse this rejection.

With respect to independent claim 1 and referencing the exemplary embodiment depicted in Figure 1A for illustrative purposes, Applicants claim a signal processing device having the following limitations:

*a commercial message section detecting means (202) for detecting a commercial message section (202a) from an input signal (200a) including at least the commercial message section and the remaining signal section on a time division basis (See, U.S. Pat. Pub. No. 2002/0012105, at paras. [0010], [0046] and [0047]);*

*a commercial message extracting means (201) for extracting a commercial message (201a) in the commercial message section from the input signal in accordance with a result of the detection by the commercial message section detecting means (202) (See, *Id.* at paras. [0010] and [0048]);*

*a recording means (205) for recording each signal extracted from the input signal by the commercial message extracting means (201) (See, *Id.* at paras. [0010], [0048]-[0049] and [0082]-[0090]);*

*an index information extracting means (206) for extracting information from said commercial message section to be used as a user-selectable index(206a) representing said recorded commercial message, the information extracted from said commercial message section and associated with said commercial message being one of a starting image, a cut point image, a starting sound or an ending sound (See, *Id.* at paras. [0010], [0048]-[0049] and [0082]-[0090]); and*

*a display means (208) for displaying said index* (See, *Id.* at paras. [0082]-[0092]).

Independent claims 27 and 55, although of different scope than claim 1, have similar limitations to those in claim 1.

The Examiner, in rejecting claim 1, now acknowledges that *Nafeh* fails to disclose “a commercial message extracting means for extracting a commercial message in the commercial message section from the input signal in accordance with a result of the detection by the commercial message section detecting means” as taught by Applicants and recited in claim 1. (See, August 6, 2009 Office Action, at pg. 3). However, the Examiner asserts that *Wordemann* teaches “a commercial message extracting means” feature that is missing from the teachings of *Nafeh*.

Applicants respectfully disagree that *Wordemann* discloses or fairly suggests the “commercial message extracting means” feature of claim 1. The Examiner points to Column 10, lines 32-39 of for support that *Wordemann* discloses “a commercial message extracting means” as recited in claim 1. (See, August 6, 2009 Office Action, at pg. 4). However, the *Wordemann* patent ends at Column 10, line 17. Therefore, Applicants submit that the Examiner has offered any support for how *Wordemann* discloses or suggests this feature. To the contrary, *Wordemann* discloses a recording and reproduction device (as shown in Fig. 5) in which a television transmission with advertising blocks is recorded, then the beginning and ends of the advertising blocks are marked, and the advertising blocks are then skipped or “masked out” during subsequent reproduction or recorded over by compacting the program portions so that “the advertising blocks are eliminated.” (See *Wordemann*, Abstract). Thus, *Wordemann* teaches detecting and either skipping or eliminating commercial messages from an input signal before

subsequently reproducing the input signal. Therefore, Applicants submit that *Wordemann* fails to disclose or fairly suggest a signal processing device having a commercial message extracting device for extracting a commercial message from a detected commercial message section of an input signal for a recording means to separately record each commercial message extracted from an input signal (or program segment) so that the commercial messages may be selectively indexed as taught and claimed by Applicants.

With respect to the remaining features of claim 1, the Examiner also acknowledges that *Nafeh* fails to disclose (1) “a recording means for recording each signal extracted from the input signal by the commercial message extracting means” or (2) “an index information extracting means for extracting information from said commercial message section to be used as a user-selectable index representing said recorded commercial message and display means for displaying said index.” (See, August 6, 2009 Office Action, at pg. 3). However, the Examiner still maintains that *Hook* teaches the “recording means” and “index information extracting means for extracting information from said commercial message section to be used as a user-selectable index(206a) representing said recorded commercial message” limitations that are missing from the teachings of *Nafeh*. (See, August 6, 2009 Office Action, at pgs. 4-5 and April 2, 2009 Office Action, at pgs. 4-5).

Applicants respectfully disagree and respectfully submit that the Examiner has not addressed Applicants’ prior arguments as to why *Hook* fails to disclose “a recording means for recording each commercial message extracted from the input signal by the commercial message extracting means” and “an index information extracting means” as recited in claim 1. (See, April 30, 2009 Response to the April 2, 2009 Office Action, at pg. 16-18). Applicants re-submit reasons as to why *Hook* cannot be fairly viewed as disclosing these claim 1 features. *Hook*

teaches “an interactive video distribution system (20)” that includes an “editing facility (28)” and a “head-end facility (54)” that encode and distribute “advertisements (40, 42)” in “an interactive video program (36)” to “subscriber units (22’).” (See *Hook*, Abstract, Col. 2:35-64; Col. 3:33 - Col. 6:60; Figs. 1, 2 and 3). *Hook* further teaches the distributed “interactive video program (36)” with the encoded “advertisements (40, 42)” may be viewed on a “television screen (98)” of a “video subscriber unit (22’),” where a “logo 108 identifies [the] advertisement 40 as an interactive advertisement” and “informs the subscriber of interactive subscriber unit 22’ that [the] advertisement 40 can be registered in the one of [the] advertisement menus 92” stored by the “head-end facility (54)” for the subscriber. (See *Hook*, Col. 8:47-67). However, nowhere does *Hook* teach that the “head-end facility (54)” or the “subscriber unit (22’)” detects and extracts the advertisements 40 or 42 from the program (36) or subsequently stores and indexes the extracted advertisement 40 or 42.

The Examiner points to Figures 7 and 8 for support that *Hook* discloses “a recording means for recording each signal extracted from the input signal by the commercial message extracting means” and “an index information extracting means for extracting information from said commercial message section to be used as a user-selectable index representing said recorded commercial message” as required by claim 1. (See, August 6, 2009 Office Action, at pgs. 4-5; and April 2, 2009 Office Action, at pg. 4).

Applicants respectfully disagree. With reference to Figures 7 and 8, *Hook* teaches that a subscriber may request “supplementary advertising information” by pressing a designated key on a subscriber interface 96 when the advertisement 40 or 41 is in view on the television screen 98 of the video subscriber unit 22’. In response to a subscriber’s request to register an advertisement 40 or 41, *Hook* also teaches using a predefined advertisement identifier 120

corresponding to data encoded with the advertisement 40 or 41 as an entry 118 in the menu 92 associated with the respective subscriber. *Hook* further teaches that the subscriber may request to view the menu 92 of predefined advertisement identifiers registered by the subscriber so that the subscriber may select an entry 118 to request the “supplementary advertising information.” (See *Hook*, Col. 8:61 - Col. 9:52; Col. 10:46 - Col. 11:52; Figs. 4, 6, 7, 8 & 9). However, Applicants submit that the use of a predefined advertisement identifier 120 as a selectable entry in a subscriber menu is not the same as or equivalent to “an index information extracting means for extracting information from [the] commercial message section to be used as a user-selectable index representing [the] recorded commercial message” as required in claim 1.

Moreover, Figure 7 of *Hook* simply discloses a process performed by the head-end facility 54 to provide a subscriber with selected “supplementary advertising information” as shown in Figure 9 of *Hook* based on the subscriber selecting one of the predefined advertisement identifiers 120 registered by the subscriber as previously noted.

In addition, Figure 6 of *Hook* does not suggest that the head-end facility 54 “records the extracted commercial message into the subscriber’s data base ... to allow for the user to properly choose a commercial that is desired for viewing” as asserted by the Examiner. Applicants submit that Figure 6 of *Hook* simply discloses the database of menus 92 stored by the head-end facility 54 for various subscribers, where (as previously noted) a menu 92 contains predefined advertisement identifiers 120 registered by the respective subscriber for the purpose of requesting supplemental advertising information. As previously noted, *Hook* does not disclose or fairly suggest that the predefined advertisement identifiers 120 are information extracted from a commercial message for use as an index.

The Examiner also acknowledges that *Nafeh* and *Hook* each fails to disclose “an index information extracting means ...” where “the information extracted from said commercial message section and associated with said commercial message [is] one of a starting image, a cut point image, a starting sound or an ending sound.” However, without addressing Applicants’ prior arguments to the contrary, the Examiner continues to maintain that *Dimitrova* teaches this limitation that is missing from the combine teachings of *Nafeh* and *Hook*.

Applicants respectfully disagree and reasserts reasons presented in the April 30, 2009 Response to the April 2, 2009 Office Action for distinguishing these features of claim 1 over *Dimitrova*. *Dimitrova* discloses a commercial detection apparatus 56 having a processor 57 with a commercial detection thread 86. (See, *Dimitrova*, Abstract, Col. 4:53 - Col. 5:23; Figs. 1A, 1B and 2.) To detect a commercial in an input signal 52, *Dimitrova* discloses that the commercial detection thread 86, when processing a frame of the input signal 52, looks at “the average cut frame distance, cut rate, changes in the average cut frame distance, the absence of a logo, a commercial signature detection, brand name detection, a series of black frames preceding a high cut rate, similar frames located within a specified period of time before a frame being analyzed and character detection.” (See, *Dimitrova*, Abstract, Col. 14:31-48; Col. 15:28-49). *Dimitrova* further teaches that the times in which the detected commercials are found in the input signal 52 are saved in memory 78 so that, when the signal is played back, the detected commercials “are either skipped or substituted with alternate content.” (See, *Dimitrova*, Abstract, Col. 14:31-48; Col. 15:28-49; Col. 19:49-60). Thus, even though *Dimitrova* discloses various means for detecting a commercial within in input signal, Applicants submit that *Dimitrova* fails to teach or fairly suggest extracting information from a detected commercial for use as index for display and selection by a user for viewing. In particular, *Dimitrova* fails to

teach or fairly suggest that “*the [index] information extracted from said commercial message section and associated with said commercial message [is] one of a starting image, a cut point image, a starting sound or an ending sound*” as required by claim 1.

Thus, for at least the foregoing reasons, Applicants submit that *Nafeh, Wordemann, Hook* and *Dimitrova* (alone or in combination) fail to teach or suggest all the limitations of independent claim 1. Accordingly, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Independent claims 27 and 55 each has limitations similar to claim 1. Thus, Applicants submit that claims 27 and 55 should also be deemed allowable for at least the same reasons as given for claim 1 above.

Claims 2-12, 14-26, and 53 depend directly or indirectly from claim 1 and should be deemed allowable for at least the same reasons as claim 1. Claims 28-38, 40-52, and 54 depend from claim 27 and should be deemed allowable for at least the same reasons as claim 27. Accordingly, Applicants respectfully request that the rejection to the dependent claims 2-12, 14-26, 28-38, and 40-54 be withdrawn.

## **II. Conclusion**

In view of the foregoing, Applicant submits that all pending claims are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

If the Examiner believes that, for any reason, direct contact with Applicants' attorney would help advance the prosecution of this case to finality, the Examiner is invited to telephone the undersigned at the number given below, for purposes of arranging for a telephonic interview.

Any communication initiated by this paragraph should be deemed an Applicant-Initiated Interview.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 19-3140.

Respectfully submitted,

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